

California **GARDEN**

NOVEMBER-DECEMBER 1997

Volume 88 No. 6

\$1.50



HORTICULTURAL CALENDAR

NOV. 1

FALLBROOK GARDEN CLUB Harvest Plant & Bake Sale. Lucky Market on Mission. Sat. 8AM-2PM. 723-4119.

NOV. 1-2

SOUTH COAST BOTANIC GARDEN FOUNDATION Chrysanthemum Show & Sale. 26300 Crenshaw Blvd., Palos Verdes Peninsula. Sat. & Sun. 9AM-4:30PM. 310/544-1948. \$5.

NOV. 4, 18 & 25

SAN DIEGO FLORAL ASSOCIATION American Contemporary Floral Arrangement Classes. Casa del Prado, Rm 104, Balboa Park. Instr. V. West. Bring materials & lunch. 9:30AM-2:30PM. 232-5762. \$35/\$40 for Series.

NOV. 6-9

THE HUNTINGTON Fall Plant Festival. 1151 Oxford Rd., San Marino. Thurs.-Sun. 1-4:30PM. Abundant Selection. 626/405-2141. Admission.

NOV. 8-9

LAKE HODGES NATIVE PLANT CLUB Plant Sale. Vons Mkt, The Plaza Rancho Bernardo. Sat. 9AM-4PM. Sun. 9AM-2PM. Donations or Information 480-4750.

NOV. 15

DOS VALLES GARDEN CLUB 16th Home Tour. Meet Valley Center Comm. Hall, 28246 Lilac Rd. Sat. 1-5PM. 749-7654. \$7.50.

DEC. 1

PALOMAR DISTRICT DESIGN FORUM Floral Design Program by Ada Heiman. The Courtyard, 16935 West Bernardo Dr., Rancho Bernardo. 12:30-3PM. 749-1920. \$8 at door.

DEC. 2

LA JOLLA GARDEN CLUB Holiday Tea and Bazaar. 7776 Eads Ave. La Jolla. Tues. 12:30-3:30PM. 454-4109. \$7.50 at door.

DEC. 5-6

SAN DIEGO FLORAL ASSOCIATION 20th Annual Holiday Show "Nature's Palette" Casa del Prado, Majorca Room, Balboa Park. Fri. 5-9PM; Sat. Noon-9PM. 232-5762. Free.

DEC. 8

THE ARBORETUM OF LOS ANGELES COUNTY Holiday Decorating by Rene van Remes. 301 North Baldwin Ave., Arcadia. 10AM-Noon. Call 626/447-8207. \$15/\$20.

JAN. 5

PALOMAR DESIGN FORUM Floral Designers from San Diego Floral Association. The Courtyard, 16935 West Bernardo Dr.,

Rancho Bernardo. 12:30-3PM. 749-1920. \$8.

ONGOING EVENTS

QUAIL BOTANICAL GARDENS 230 Quail Garden Dr., Encinitas. 9AM-5PM. 436-4032.

BLUE SKY ECOLOGICAL RESERVE Walks. Poway. Sat & Sun 9AM. 486-7238.

WALKABOUT INTERNATIONAL Local Guided Walks. Newsletter 231-SHOE. Free.

BALBOA PARK: ONGOING PROGRAMS

SAN DIEGO JAPANESE FRIENDSHIP GARDEN (by Organ Pavilion) Docent Tours Tues., Fri., Sat., Sun. Open 10AM-4PM. 232-2780. Donation.

SAT. OFFSHOOT TOURS One Hour. Meet Botanical Lath House. 10AM. 235-1121. Free.

WED. INTERPRETIVE WALKS Ranger Guided. Meet Visitors Center. Noon. 235-1121. Free.

GARDEN CLASSES

SUMMERS PAST FARMS 15602 Olde Hwy. 80, Flinn Springs. Nov. 8 & 13; Dec. 13. Vegetable Gardens, Fruit Tree Care & Pruning. Sat. 11AM-12:30 PM. 390-1523. Free.

Deadline for submission to

HORTICULTURAL CALENDAR for Jan./Feb. issue is Nov. 15. **SAN DIEGO FLORAL ASSOCIATION** is not responsible for changes that are submitted late by the organizations.

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Manuscripts are invited. Deadlines are the 20th of January, March, May, July, September, and November. *California Garden* reserves the right to edit any and all submitted material. All manuscripts and illustrations will be handled carefully, but we cannot assume responsibility for their safety. Submissions must be double spaced and/or on a computer disk from IBM or compatible. Enclose self-addressed postpaid envelope if you expect them to be returned to you. *Hortus Third* is the authority for all botanical names used in the magazine. All opinions expressed are those of the authors and do not necessarily reflect the views of the editors of *California Garden*. No endorsement of named products is intended, nor is criticism implied of similar products that are not mentioned.

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NOVEMBER-DECEMBER 1997

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FRONT COVER, by Pat Belkham, of *Begonia* 'Lana'. This is a cane-like, Superba type begonia, developed in 1965 by Paul and Margaret Lee, named for the late Lana Shone of Lakeside. Reprinted from Volume 77, Issue 5.

BACK COVER photograph of *Ginkgo biloba* 'Autumn Gold', source unknown.

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FLOWER SHOWS: Show chairman contact *California Garden*, 232-5762 if you want the magazine sold at your show.

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Gleanings . . .

NARCISSUS TIME . . .

Bulbs, especially narcissus, should be appearing in our local stores. Bulbs are sold in open bins or in packages. If you get to pick your own, be sure the bulb is firm and free from mold and bruises, and has good noses.

Did you ever wonder how they grade and price the daffodils? It's either by the circumference of the bulb or on the number of growth points, called noses. DNIII is the smallest; DNII is bigger and DNI, is the largest.

Narcissus will bloom year after year and the number will increase. Be sure to add some fertilizer to the area in the winter before the rains. Eventually they will stop blooming because the area becomes too crowded. Dig the bulbs up after the foliage dies and add some fertilizer and compost to the ground and replant them. You should have flowers again.

COLD WEATHER . . .

Every plant has a low-temperature tolerance. Because we usually do not have long periods of cold, many of our popular plants cannot tolerate cold. When the temperature drops below the plants' tolerant zone for a certain period, the plant tissues will be damaged. If it is a short "snap" just growing tips probably will be damaged, but a prolonged period could kill the plant. Another factor is how long it takes for the temperature to drop—the faster the drop the more severe the damage. We are fortunate here that we have very little frost except in or near the mountains (the nearer the coast the less cold). Usually if cold weather or frost is predicted, just a cover of material or newspapers

laid over a plant will protect it. If the tips do get damaged, don't cut them off immediately. Wait a bit to see how much damage has really been done.

MICROCLIMATES . . .

Gardeners in San Diego use the term *microclimate* differently from some local media "weathermen." Microclimates describe the difference one will notice between their conditions and those of the neighbors across the canyon or often across the street. The term, as gardeners use it, does not describe the difference between named areas (Escondido, Vista, etc.). We do have zones of temperature/climate that can be generally anticipated: coastal, inland about 1 mile, inland about 3 miles, pre-mountain, mountain, and eventually desert. Each of these zones has microclimates. That is why your neighbor can grow wonderful bananas and they die in your yard. One of the best ways to experience our climate zones is to drive east along I-8 through Mission Valley: the weather definitely changes at the Presidio, at State College, at Grossmont Center, after El Cajon as one starts up the grade, at Alpine, and then at Pine Valley—sixty miles inland. (Where we usually get some snow every winter.) Of course, you have to turn off the vehicle air conditioner or heater and open the window to really experience the climatic change. You probably will enjoy noticing how the vegetation changes, too.

TOMATO TOPICS . . .

Home gardeners are fascinated by this veggie/fruit and despite cost or trouble, endeavor to grow it. Why?

Because it tastes better than the store-bought ones. We all think it tastes best if it fully ripens on the vine, but experts explain that the ripening process has begun when the fruit is 10% red at the flower end. It can be picked then and placed in a warm place to finish ripening. Most of the store-boughts are picked green and chemically ripened so the delicious flavor does not develop. They just look good.

Recently, there have been advertisements about a Tomato Tree. It is *Cyphomandra betacea* and is a distant tomato relative as are the peppers and eggplants. They are all in the same family, Solanaceae. The tomato tree is a native of Peru and can grow to 10 feet tall in its native environment. It has pinkish-white flowers that develop into orange-red, egg-shaped fruit about 2 inches long. It does not taste very good, but is loaded with pectin and can be used to make jelly if another fruit is added to improve the taste.

Incidentally, tomatoes are listed as perennial plants. Theoretically they can grow for many years with proper warmth, light, water, and nutrients. Most of us pull up the plants when the leaves and stems start to yellow. But you can just cut it back, and maybe you will be surprised to find it sprouting up again next season.

The tomato problem is that they all ripen at the same time. You can stew up the extras and freeze until needed. You can wash an unblemished tomato and freeze it until needed for cooking. Experts recommend that they be cut into fourths, quick frozen on a tray, bagged until needed to add to a salad.

TRY BEGONIAS!

by MARIANNE D. TRUBY

DURING THIS TIME OF the year, those of us in the habit of maintaining vases of fresh flower material (in my case, it is normally roses) will appreciate those plants that provide color during the winter months when our bedding plants have been removed.

Here in Southern California we are fortunate to have readily available a wealth of plant materials that are thriving while our friends to the east are enjoying the snow and ice.

I have become an enthusiastic supporter of the common garden begonia of which *Begonia semperflorens* is well known. It maintains its unusual foliage throughout the year, indoors or out, and produces long-stemmed pink flowers. The more than one thousand natural and cultivated hybrids frequently have multi-colored leaves. Some varieties form bushy, compact plants while others (cane-type) grow tall and woody with bamboo like joints. They are easily propagated from leaf, stem, or rhizome cuttings. They are usually classified by growth habit.

I have received cuttings from various sources throughout the years and have learned to appreciate how well they adapt to all areas of the garden. Those grown from a rhizome seem to do best in pots, and during the winter months on the patio their pink blooms are most welcome. The cane-type begonias grow up to 5 feet tall under the plumeria and brighten that part of the garden when the plumeria is not in bloom.

The fibrous begonias are being used as border plants throughout Balboa Park and have become a staple in commercial border plantings. They seem able to withstand all kinds of weather and make a statement with their green, russet, or dark-red foliage, even when not in bloom. They require little maintenance and when they get leggy, they can be cut back and will quickly recover and repeat their bloom. They do well in containers, hanging baskets, and can be grown indoors and outside. Great for window boxes and patios.

An evergreen branch enhanced by a few sprigs of begonia with pink blooms can be an attractive arrangement during the time other cut flowers are not blooming in the garden. Not as showy perhaps as tuberous begonias but an easy-to-grow plant that can be happy most anywhere in your garden throughout the year. Try Them!□

Marianne D. Truby is an ARS consulting rosarian and judge.

CACTI, AGAVE, OCOTILLO, AND YUCCA

THE THICK, WAXY-COATED stems of these perennial herbs are quite resistant to moisture evaporation, which gives them considerable drought tolerance. Cacti are leafless; however, most have spines. Photosynthesis (food production for the plant) occurs within the green outer cortex (bark) of the stems. Moisture reserves are stored in the internal part of the stems, sustaining these plants through prolonged dry periods of desert climates. Structural support for cactus plants is provided by internal fibrous or woody skeletal forms. Most cacti have tapering taproots that anchor the plant, and fleshy lateral roots (three to five inches below the soil surface) that extend outward for several feet in all directions to absorb and store moisture and nutrients. Their rose-like flowers, which are contrastingly delicate and beautifully colored, produce edible but sometimes not too palatable fruit.

AGAVES are one of several types of "succulent" (high moisture content plants). The century plant (*Agave americana*) is the more commonly grown in local landscapes; still, there are numerous other agaves equally appropriate and often more desirable for desert-type landscape use. Actually, considerable variety in size, color, and form are available within this interesting family of desert-tolerant succulents.

OCOTILLO is another unique native desert plant that lends striking accent with its low-branching, leafy, whip-like canes topped with bright orange-red flowers. Profuse leafing of the canes follows periods of sufficient soil moisture. During periods of drought, these curious plants shed their leaves to reduce evaporative surface and conserve plant moisture.

YUCCAS are also naturals for any southwest desert scene. Their characteristic profiles offer aesthetic contrast, when appropriately displayed in a landscape. Here, too, there is more variety selection than the average gardener would suspect. Growth of yuccas occurs at the terminals (tips). As their older leaves mature and hang downward, the plant depicts a rustic, shaggy appearance.

CARE of cacti is minimal but important. The soil should not be cultivated or otherwise disturbed in a radius of several feet around cacti lest their shallow

(continued on page 173)



Sycamores Start Yellowing In July

OUR TREES WITH GOOD FALL LEAF COLOR

by BETTY NEWTON

HUNDREDS OF SOUTHERN CALIFORNIANS travel each year to New Hampshire and Vermont to see the trees in color.

Some of our landscape trees' colors are bright in fall, too. When the low sun glints through their leaves at the end of October, through November, they may be compared to fiery staghorn sumac of northern Arizona, red vining maples of Washington and Oregon, and others of New England. But there is no aspen here (you'd have to go to Baja California — 6,000 to 10,000 feet) that turns yellow — a tree whose dramatic white bark is exposed after leaves drop. Our European white birch is drab in comparison.

Our glorious native California sycamore, a signature tree, is the *Platanus racemosa*. It is beautiful because of its irregular, artistic trunk structure. Unfortunately, rather than give a clear, bright sign of fall, California sycamores start turning dusty brown and gold in July. Even native cottonwoods (*Populus fremontii*), those with notched, fat-arrowhead leaves, and round, yellow heads, are brighter than sycamores in the riverbeds and back country.

One excited growth hormone, auxin, activated by longer nights and cooler weather, makes the bright yellow and red leaves we enjoy. Our best fall color comes from *Liquidambar*s, Chinese pistaches, Modesto ashes, cottonwoods, and poplars. Some very cold autumns we get strong yellow in the huge fruitless



Liquidambar styraciflua

mulberry leaves and much smaller leaves of elms such as 'Brea' and 'Tru-Green'. The crinkle-edged, ovate leaves of ornamental pear trees get red, yellow, (and black fungus-marked) among the regular dark green ones. I post them on the refrigerator marking the season. Persimmons and pomegranates reliably give great fall yellow here.

Surely you will look up the ultimate width and height of a tree before planting it. A *Liquidambar* (sweet gum) from forests of southeastern states gets sixty feet tall and, if closer than seven feet to a sidewalk or patio, will break the concrete.

Liquidambar has maple-like leaves and makes

easterners feel comfortable. It evokes autumn. If you choose a liquidambar for your home, choose it in color. There are fine, consistent, grafted cultivars with names like 'Festival', 'Palo Alto' and 'Burgundy'. They are the result of selection from seedlings done years ago at the Saratoga Foundation near San Jose. If you are wise, you will choose a named cultivar.

Chinese pistache trees (*Pistacia chinensis*) with no nuts have round heads wonderfully filled around Thanksgiving with red, yellow, and orange leaflets. Then suddenly after a month long metamorphosis, the leaves drop, leaving clusters of seeds in the trees' bare-bones framework of branches.



Chinese pistache tree (*Pistacia chinensis*)

The leaflets making up each leaf of a Chinese pistache are pointed, very much like those of pecan trees. The fairly globular form of this tree is created by angularly-arranged branches. The fine pistache is a notably drought-resistant tree; in one sample planting here, it grew to twelve by twelve feet in twenty years on little more than rainwater. It would need more water on a course mountain-top soil.

Fraxinus velutina 'Modesto' (Modesto ash) makes a handsome 25- to 30-foot round head of yellow leaves every fall. I recognize this tree by the limited height and umbrella-like spokes of the branches. You may already have seen it; Swallow Drive in El Cajon is lined with Modesto ash. Unfortunately, this ash consistently gets anthracnose fungus blackening parts of leaves. With some roses you get thorns; with umbrella-shaped Modesto ash you get blemished leaves in fall. I still love it.

Slow-growing ginkgo trees with maidenhair fern-shaped leaves turn pure yellow. We have a few big old ones around town and some young ones coming. The most easily found may be that in the group of small houses called House of Pacific Relations in Balboa Park. Forty years grow a big ginkgo.

The crape myrtle (*Lagerstroemia*) hybrids named after Indian tribes color very well in fall. But they are

best in our hotter sections and, after all, only get twelve to eighteen feet tall.

Time to look out for the fine colored trees that Southern Californians grow and enjoy.

Betty Newton teaches gardening classes at Grossmont Adult Schools and writes for the Sunday San Diego Union-Tribune. Photos by the author.



Fraxinus velutina above
Modesto ash is a cultivar of this species.

LIFE UNDER COTTONWOOD TREES

by CYNTHIA CARLSON

I LAY FLOATING IN my Dulzura swimming pool watching the first golden leaves of the cottonwood trees drift and lazily twirl on their journey down to the blue water. It was late fall and the annual shedding of the cottonwood's thick canopy of leaves over the southwest end of the pool had begun. I loved the contrast of blue and gold and each morning before I reluctantly broke up the mosaic of sapphire-colored water and yellow leaves. I stopped beside the pool taking deep breaths of the autumn air, admiring and honoring Nature's beauty.

I have had a deep affection for cottonwoods since making a trip years ago down the Pacific Coast of Mexico. I had read in a Mexican tourist book about Mexico's oldest silver-mining community, Alamos, now restored and declared a National Monument. We were anxious to visit this old town, which is in the mountain foothills about thirty-five miles inland from Obregón. I never will forget the entrance to this fascinating place of Mexican/Spanish history. Immense 80- to 90-foot *alamos*, or cottonwoods, lined the main road and along each large street within the town. I was enthralled and vowed someday I would have cottonwoods of my own. Now life had brought me to a ranch home beside Cottonwood Creek in Dulzura and I could make my dream come true.

My cottonwood's green leaves had shimmered in the breezes since very early spring, growing darker in tone as summer, then winter approached. Suddenly in late fall, the dark-emerald leaves had turned bright, lemon yellow and their shedding began, lasting through late winter. (According to *Sunset* magazine, in zones 12 and 13, some yellow leaves cling to the branches all winter long.) For those of us who lived under

cottonwoods, dropping leaves meant skimming pools or raking paths through the final two or three months of each winter. I used these fallen leaves as mulch for the garden, letting winter rains flatten them to hold moisture until the following summer.

From my kitchen window I can look down into Cottonwood Creek's water course, which rises in the Laguna Mountains, flowing to Morena Lake, Barrett Lake, then southwest through what the early settlers called Cottonwood Valley, to terminate in the Tijuana River, and thence into Baja. *Driving from Pine Valley off Highway 8, then turning south on S-1 by Lake Morena and west on 94 in Campo, this riverbed is visible. All along its course, the many cottonwoods delight the eye and soul of the traveler with their glossy, yellow green of summer and their bright yellow turning into tawny gold of early winter.*

Small greenish yellow flowers in long, slender, spike-like clusters appear before the leaves in late winter or early spring, but their appearance is short-lived so they cause little labor from the gardener to keep them off the surface of a pool or path. Because female cottonwood trees bear masses of cottony seeds, which blow about and become a nuisance to the gardener as well as a menace to allergy sufferers, it is best to plant only male trees (called *cottonless* in nurseries). Although I planted from nursery stock, I found later that the tree can easily be propagated by cuttings made just before the branches leaf out. Western (or Fremont) cottonwoods, *Populus fremontii*, are fast growers to 40-100 feet high. We found as they approached the 40-foot height that it was scary to see them bending in high, or in Santa Ana, winds. Would they uproot and crash down on our yard and house?



Populus fremontii (a) seed pods

Would branches break off and cause damage? The answer was a tree specialist, who came out with truck and ladder to reduce the trees' height and to thin. Now, we felt more confident and most pleased with the trees' resultant silhouettes — the rough, gray bark of the branch structure was visible and very interesting to study from the pool or deck.

Cottonwoods require little water except when just starting, especially the first and second summers. If the roots tap into underground water (which three of ours have) they will become drought tolerant. Otherwise they will require deep, constant soil moisture, best given in periodic, deep soakings. The leaves will turn prematurely yellow and drop if the ground dries out before the roots have found natural ground water. If the cottonwood is grown in or near lawns, greedy surface or buttress roots are also a problem. The roots also can invade sewer or water lines in search of moisture. Be aware of this, and if this can be a problem in your location, use cottonwoods as temporary screening or shade. In large lawns, golf courses, parks, along country roads, or as field boundaries are generally their best uses. They evoke an informal and elegant feeling — suggesting a Mexican hacienda, a western ranch and fields, a long row of beauty along a country road. □

Cynthia Carlson, a former elementary and high school teacher, has an eight-acre demonstration garden for natives and drought-tolerant plants on Barrett Lake Road. Called Quinta Helena, it is open by appointment only, call 468-3286.

assure the survivability of the beneficial wasps when they are eventually released.

My plants may not always look too good, but I know I can keep them alive with water until the wasps take over. I am prepared to go into a year-long holding pattern, if need be, waiting for the release of the wasp-without-a name. It's not that I've made a happy adjustment living with the Giant Whitefly. It's simply that there is nothing else that I can do! □

Mort Brigadier majored in horticulture at Cuyamaca College and has an MBA in management. He is a UCCE Master Gardener.

THE GIANT WHITEFLY Good News and Bad News

by MORT BRIGADIER

THE GOOD NEWS IS that a predatory, non-stinging wasp is being raised at the American Insecterie in Escondido that is expected to control the Giant Whitefly. Although still unnamed by toxicologists, the wasp can penetrate the coating of wax that protects the nest and makes sprays ineffective. Jim Davis, at the Insecterie, told us that the wasps are still under quarantine. They will not be released to the public until enough of them have been raised to form colonies and reproduce on their own.

No one knows how long it will take to effect a control, but Dr. Karen Robb, Floriculture Adviser with the UCCE, expects that the wasps will spread rather rapidly once they are released. Horticulturist Malcolm Law cautioned that we need to give the wasps a chance to do their job, once they are released, and not kill them off with pesticides. All too many of us are still trying to control the Giant Whitefly with a wide variety of pesticides. The only spray with a chance of controlling the Giant Whitefly, according to Dr. Robb, is the use of water to wash the white fly off the bottoms of the leaves (see "The Under the Leaf Water Wand," Sept-Oct *California Garden*, page 142).

THE BAD NEWS is that we don't know when the to-be-named wasps will be ready for release. Even partial control might take a year or longer. Survivability of the predatory wasp is a major concern of garden writer Susan Mack. So what can we do while waiting for the beneficial wasps to establish control? The San Diego County Master Gardener office is advising all callers to forgo any chemical and continue the soap and water routine. The UCCE Farm Advisor, Vince Lazaneo, whose monthly editorial contributions to *California Garden* are highly prized, confirms and reaffirms the use of water as the major weapon of choice. For a free copy of his handout, "Giant Whitefly," (it also addresses other options) call 619/694-2860 any time and leave your name, address, and telephone number on the answering machine. It is an old machine, so please speak very clearly and distinctly.

Winter and "El Niño" should combine to slow the spread of the Giant Whitefly. Rains will give us a much needed break from the ritual of spritzing with water. With cooler weather and more rainfall, our best bet is to hold back on use of chemicals. We need to

OUR OWN ROYAL FAMILY: QUEENS AND MONARCHS®

by PAT PAWLOWSKI



Great Britain, eat your heart out: We Americans have our own royal personages, and from what I hear, nobody has any complaints about them. Well, maybe one complaint: There are not enough of them.

Not enough royal personages? you might ask. How can that be? The monarchs and queens we're fortunate enough to have in our country are butterflies, and as every lucid lepidopterist knows, you can't have too many of these regal insects.

Since we've talked about monarchs—and how to attract them—in this magazine before, we'll concentrate on queens this time. However, queens and monarchs are tied together by a defensive behavior called mimicry, which is the resemblance of one animal to another.

The queen butterfly (*Danaus gilippus strigosus*) mimics the monarch butterfly (*Danaus plexippus*). If you were a nature lover and saw a resting butterfly with wings folded above its back, orange wings with veins outlined in black with white polka dots on the black wing margins, your reaction might be: Wow! A monarch!

If you were a bird and saw the butterfly, your reaction would likely be: Ugh! A nasty-tasting, stomach-upsetting monarch! You'd fly away as quickly as your feathers would flap.

The underside of the wings of the queen butterfly closely resembles the wings of a monarch. Predators learn that eating orange-and-black winged butterflies with white polka dots gives them a world-class hangover, so they avoid both species (this type of mimicry is called Mullerian mimicry).

Monarchs are unpalatable to predators such as birds, lizards, shrews, moles, mice, bats and so forth because the bodies of the butterflies contain toxins. How did the toxins get there? You might ask. (However, if you had read my previous article about monarchs, you would already know. But, for those excessively unfortunate individuals who have not read my previous columns, I'll explain things right now, and no napping allowed.)

THE BIRDS AND THE BEES AND THE BUTTERFLIES

After sex (I'm using the word "sex" instead of "mating" because when sex is involved, people are more prone to stay awake). . .

Anyway, after sex (or copulation, if you want to get fancy), the female monarch lays her eggs on the leaves of a milkweed plant (*Asclepias spp.*). Soon, a tiny caterpillar, or larva, pops out of the egg and starts eating the milkweed, also known as the caterpillar's "host plant" or "larval-food plant." Milkweed contains toxins. Although the toxins ingested by the monarch larva do not harm the larva, they sure do a job on any predator who decides he wants a caterpillar snack.

(Keep reading, we're going to get back to discussing sex a bit later in the article.)

Once ingested by the monarch caterpillar, the toxins stay in the body of the butterfly through the rest of the life cycle. The caterpillar—a white, yellow, and black-striped looker with antenna-like filaments—soon turns into a pupa, or chrysalis, of a beautiful jade green color with spots of gold.

It eventually emerges as a beautiful adult butterfly, with bright orange and black wings that declare: Hi! I'm highly toxic!

So we know that eating milkweed as a caterpillar makes both the monarch butterfly caterpillar and the adult unpalatable.

The same goes for the queen butterfly. As adults, both monarch and queen will search for consorts; and as they search, they sustain themselves with the nectar from flowering plants.

To attract these royals into your yard, it's a good idea to include plants that feed both the caterpillar or larval stage (milkweeds) and the adult stage (plants whose flowers contain copious amounts of nectar).

LARVAL-FOOD PLANTS

While they will consume any type of milkweed if they are hungry enough, monarch caterpillars seem to prefer blood-flower milkweed (*Asclepias curassavica*). It's a non-native perennial. The flower heads of this variety are composed of clusters of tiny orange-red and yellow flowers. Now there is a new variety available, called 'Silky Gold', with yellow and yellow-orange flowers. It's easy to grow, reaching about 2 feet in height. If it gets leggy you can always cut it back.

Incidentally, it's good to group milkweed plants together. A plot 5' by 5' is good. If you don't have enough space for that much milkweed, sell your house and buy one with more land. Or, just make do with whatever space you have. By the way, milkweed does

very well in pots.

Don't worry about the sight of munched-on leaves. There are few things in this world that look absolutely perfect. Besides, perfection can be boring. However, if you feel you must hide monarch-eaten milkweed leaves, you can position the milkweed near other types of plants. The butterfly caterpillars will not eat the leaves of other plant species—I guarantee it.

Another milkweed of interest is African milkweed (*Asclepias physocarpa*). The flowers are insignificant-looking but the seedpods are funky! The pods are round, light green concoctions the size of handballs, and they appear midbranch—dozens of them on the plant I saw last September at Quail Botanical Gardens. They are awesome.

As stated above, the larval-food plants of the queen butterfly are milkweeds too. Varieties that the queen prefers include rambling or climbing milkweed (*Sarcostemma hirtellum*), white-stemmed milkweed (*Asclepias albicans*), desert milkweed (*A. erosa*), and rush milkweed (*A. subulata*). These milkweeds are natives, mostly occurring in the desert, where the queen breeds. However, during the fall the queen shows

up in coastal areas of San Diego County, so you can include these plants in your garden in the hopes of attracting queens. Just remember not to water them much.

The native milkweeds may not be easy to find. Still, this leads us to the next topic.

MILKWEED SOURCES

The native milkweeds mentioned in the previous paragraph may be seen in the native plant garden at the Wild Animal Park (WAP) in Escondido. Created and lovingly nurtured by the Lake Hodges Native Plant Club, this native plant garden is a beaut. The WAP's list of wild delights is definitely not limited to animals.

We San Diego Countians are fortunate to have two wonderful native plant organizations in our area: the

Lake Hodges Native Plant Club (741-0829) and the California Native Plant Society, San Diego Chapter (685-7321). You can't find friendlier, more helpful people anywhere. If you have any questions about native plants, just give either of these organizations a call.

The California Native Plant Society usually holds two plant sales a year. Although it's too late to attend the fall sale, the society is having another sale in the spring—and it's sure to be great.

The good news is that the Lake Hodges Native Plant Club Sale will be held on November 8 and 9 this year, at the Vons Market in Rancho Bernardo. (For information, call 673-1644.)

Last, but never least, milkweed plants of many

varieties can be obtained from The Monarch Program, an educational, public benefit organization dedicated to research, education, and conservation concerning the monarch butterfly. The Monarch Program maintains a 1200 sq. ft. vivarium where butterflies in all life stages can be observed. Also displayed in the vivarium are many varieties of larval-food plants and nectar plants. The vivarium is open to the public 11 a.m. to 2 p.m. on most Saturdays (call before



Queen Butterfly on *Senecio* Species, Photo by Bill Howell

going: the number is 944-7113).

NECTAR PLANTS

Adult queen butterflies are extremely fond of the nectar found in the flowers of sand-wash groundsel (*Senecio flaccidus* var. *douglasii*). This is a native plant with attractive, yellow daisylike flowers. The name *Senecio* means "old man," referring to the white fluffy seed heads. It can be seen near the WAP's Native Plant Garden. When I was there I saw at least a dozen queens fluttering around this plant. Pat Sigg and Gordon Gibson, Lake Hodges Native Plant Club movers and shakers, assured me that *Senecio* is easy to grow, blooms copiously, and looks good almost year-round.

Other favorite nectar plants, some of which are

non-natives, include fogfruit (*Lippia lanceolata*), goldenrod, milkweed flowers, and various daisies.

Nectar plants beloved by monarchs include bottlebrush (*Callistemon citrinus*), *Ceanothus* spp., *Myoporum laetum*, *Aster frikartii*, *Calendula*, *Cosmos*, *Lantana*, *Scabiosa*, English ivy (*Hedera helix*), and *Sedum* spp.

Another plant to include in the butterfly garden is heliotrope (*Heliotropium arborescens*). The name comes from the Greek *helios* (the sun) and *trope* (to turn). In olden times, the flowers were thought to turn with the sun (like many San Diegans). Besides exuding a wonderfully fragrant scent reminiscent of cherry pie, heliotrope provides queen butterflies with nectar and is said to be utilized by them to attract the opposite sex.

SEXUAL ATTRACTANTS

That got your attention, didn't it?

Monarchs and queens need love, too. To this end, butterflies produce their own version of after-shave; while they don't have Brut, Hugo, Polo Sport, or Aqua Velva at their command, male queens and monarchs do have pheromones, androconia, and hairpencils.

Pheromones are chemicals that are used to facilitate courtship. It is said that male queens use alkaloids from the leaves of heliotrope to manufacture pheromones, which they waft about in order to make females receptive.

Androconia are special aphrodisiac scent scales, which appear on the upper surface of the male's hindwings.

Hairpencils are extrusible organs that function as tiny scent-filled brushes. The airborne male queen positions himself in front of a flying female queen. He everts his hairpencils and dusts her antennae with his scent. If she is in a receptive mood (and the scent may indeed make her so), she and then he will land, and coupling will take place.

But the male monarch differs in his approach. While the male queen employs some subtlety in courting the female queen, the male monarch over-enthusiastically grabs the airborne female monarch and carries her to the ground, where he attempts to mate with her. But the female monarch has a trick or two up her sleeve to discourage overardent males: She plays dead.

So much for that.

ADMONITIONS AND COMMANDS

Don't use pesticides in the garden. If you do, you will kill all hope of seeing butterflies and other beneficial insects in your yard.

Even though you may do everything right—such as providing pesticide-free, warm, sheltered areas with the proper butterfly-inducing plants—you may not be



Monarch Butterfly



Queen Butterfly



Asclepias erosa

able to see queens and monarchs at all times. Both species are seasonal. In coastal areas, you are more likely to see queens during the months of October and November; that's when they migrate from their breeding grounds in the desert. Monarchs overwinter along the coast during the fall and early winter months.

Since you probably won't see them year-round, you'll certainly appreciate them when you do see them, won't you?

So it goes with many things.

Queens and monarchs reward us in so many ways: they pollinate plants; serve as food for other animals in the food chain; and provide us with visual pleasure in the garden.

And all that you, the passionate butterfly gardener, have to do is to include the right plants in the garden.

In time your efforts will reward you—royally.

Text copyright by Pat Pawlowski, who is a writer and the wildlife garden designer for Animated Gardens.

("Cacti," continued from page 165)

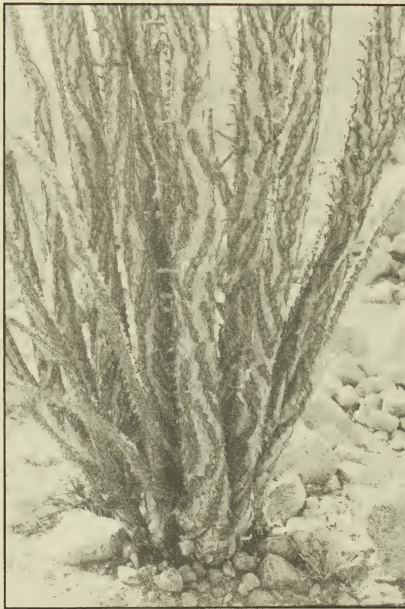
lateral roots be injured or disturbed. Light, surface raking is permissible for the sake of appearance. Crushed granite, natural stone or organic surface mulches may be used over cactus beds for decoration and protective effect. Don't mulch with any of the materials that reflect or intensify light, however.

IRRIGATION is most often not necessary for cactus plants except during critical periods of prolonged summer drought. If water remains around the base of cacti for any period, many plants will likely succumb to rots. Therefore, soil surfaces ought to slope moderately away from these plants, so water will not collect at the base of their stems. Unless you are convinced cactus is suffering from lack of moisture, don't irrigate it! Some forms of wilting occur that watering would not relieve but would increase risk of rots. Spraying water onto cacti is permissible but risky, so it's generally not recommended.

FERTILIZATION is generally not necessary; but limited cautious application of a well-balanced fertilizer early in the growing season will stimulate growth and vigor. Stimulated growth of cacti in the fall by fertilization or irrigation makes them more susceptible to winter freeze injury.

TRANSPLANTING [not to be done from a wild site] of desert plants can be done year-round with knowledgeable care, but most success is achieved during the warmer seasons, from late spring through early fall. Transplant to the original growing depth and in their original directional orientation. The south and southwest sides of these plants become toughened and resistant to sunburn. The more tender north or east sides will possibly sunburn, and scar, and may rot if grown in an area with intense hot sun. Well-drained, sandy, or gravelly-loam soils with light to moderate amounts of organic content favor root development and function of these desert

plants. Sunny, open, unrestricted locations are best. The transplanting operation so abruptly severs a plant from life-sustaining Mother Earth that some degree of shock is to be expected. It is not necessary or recommended that the tops of any cactus, yucca, agave, or ocotillo plant be pruned back when transplanting. Rooting stimulants, commercially available, help get transplants off to a quicker, stronger start and minimize transplant-shock. Be patient with transplants—some may take up to a year to recover and reestablish in their new location.



Ocotillo (*Fouquieria splendens*),
Photograph by Joseph A. Betzler

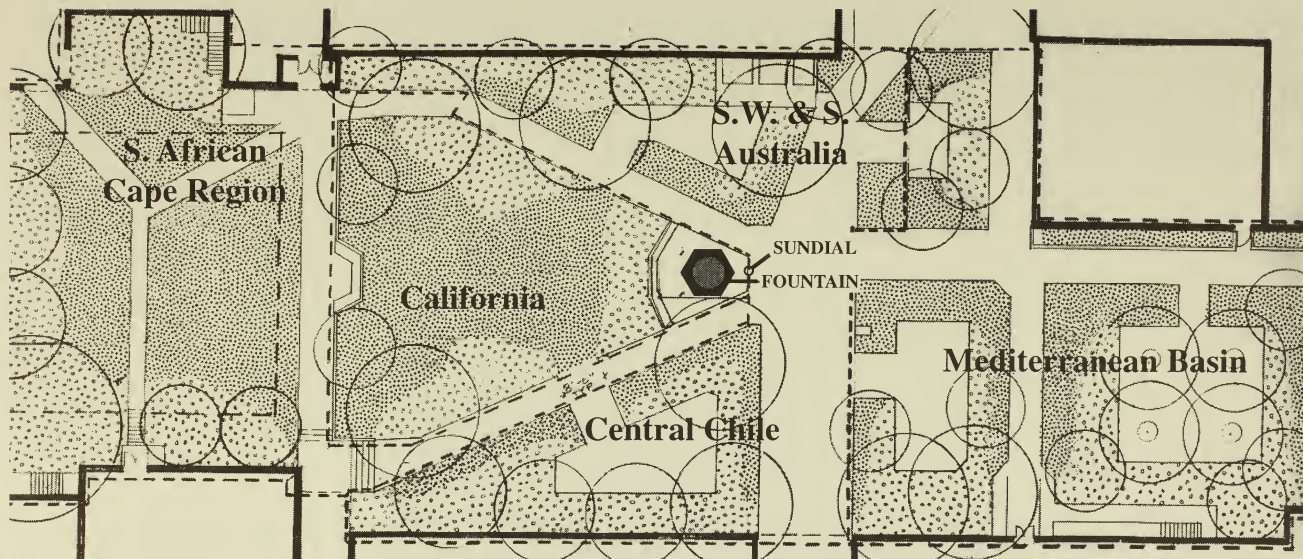
PESTS of cacti are not so numerous as they are serious. Among the most hazardous are **people**. Vandals and well-meaning, over-zealous, but uninformed gardeners so often cause needless damage.

Spider mites on yuccas; mealy bugs on stems and roots of various cacti; cochineal scale on prickly pear cactus; and pocket gophers and ground squirrels on desert plants in general are the more common insect and animal pests. Woodpeckers can do considerable damage to saguaro cactus. Check with a recognized authority for specific controls for these pests.

Rots result from various forms of injury. The best control is always prevention. The second best is quick healing before infection can set in. Powdered sulfur can be dusted into the wounds of cacti as a healing aid.

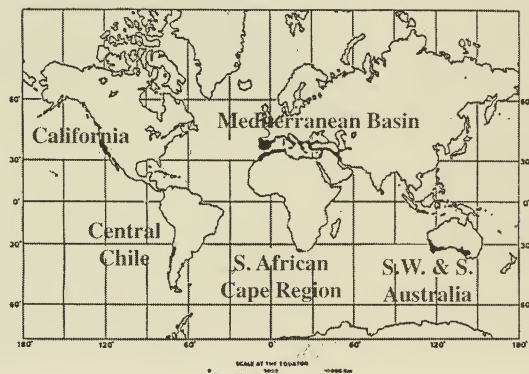
Unless the problem and solution is understood, it's most often best to do nothing without first seeking competent authority. □

This material came from the Cooperative Extension Service. It was originally written by Boyce Foerman, Extension County Agent, University of Arizona, Tucson. It was adapted for use in San Diego County by James R. Breece, Farm Advisor; and chopped up by California Garden staff to remove seeming references to removing plants in the wild, a no-no (and illegal now in Mexico).



(Above) Design plans for the San Diego State University Mediterranean garden. Represented are plantings from the five Mediterranean ecosystems of the world: Coastal California, Central Chile, Mediterranean Basin, South African Cape Region, and Southwest/Southern Australia. A fountain, the senior gift of 1997, and sundial, the senior gift of 1911, will form the centerpiece of the garden.

(Right) Geographic distribution of the five Mediterranean ecosystems of the world.



The San Diego State University MEDITERRANEAN GARDEN PROJECT

by MICHAEL SIMPSON, PAT ABBOTT, LAURA BENEDICT, AND TIM MOORE

ONE OF THE HISTORIC COURTYARDS at San Diego State University is in the process of being transformed into an attractive learning tool. Working as a team to create a beautiful Mediterranean botanical garden in the quad area south of the Life Sciences Building are professors Michael Simpson of Biology, Pat Abbott of Geology, and Barbara Fredrich of Geography, SDSU gardener Tim Moor, and environmental design alumni Anita Green and Bill Bulkley. Originally conceived by Mark Daniels in the 1930's, the landscape plans for the courtyard were to reflect the Mediterranean style motif represented in the SDSU architecture. Those plans were set aside until just recently when they were dusted off and revised to include a functional purpose along with their aesthetic value. The new plans incorporate the classic use of the Mediterranean courtyards as a source of food, fragrance and color with the new scientific function of a botanical garden.

The SDSU Mediterranean Garden will display a large collection of plants from around the world. The landscape plan (opposite) shows regional groupings of plant species from the five major Mediterranean ecosystems of the world: Coastal California, Central Chile, Mediterranean Basin, South African Cape Region, and Southwest/Southern Australia. These areas, similar in climate with wet, mild winters and warm, dry summers, have their own diverse and interesting types of vegetation.

The plant species within the Mediterranean Garden will be labeled with scientific and common names, plant family, specific locality, and uses. These plantings will serve as a botanical collection and a reference tool for SDSU biology courses such as plant systematics, plant structure and function, and plant ecology. The Garden also will be useful as a living collection for researchers interested in plants from Mediterranean climates. In addition to the educational and aesthetic benefits of the project, the Garden will require less water than the current landscaping, as the Mediterranean vegetation is naturally suited to the southern California climate.

Set as a focal point of the courtyard will be a Mediterranean style fountain and sundial. The central seating area around the fountain will offer visitors a

quiet area where they can enjoy the rare scenery of the Garden. The Mediterranean fountain has been selected as the gift of the 1997 senior class. A bronze sundial is the resurrected gift of the 1911 senior class.

To date most of the Mediterranean Basin and about half of the Australian and South African plantings are in place. Donations of trees, shrubs, and ground-cover are needed, especially for the Chilean, Californian, and remaining parts of the Australian and South African regions. Assistance with these plant donations would be greatly appreciated; a letter for tax-deductibility can be provided for the fair market value. For tax-deductible monetary donations to the SDSU Mediterranean Garden project write a check to "SDSU Foundation" (write "Med.Gard.-995621" as a note). Send check to Dr. Michael Simpson, Dept. of Biology, San Diego State University, San Diego CA 92182-4614.

Individuals and groups are encouraged to visit the garden. For more information please contact Michael Simpson at 619/594-4479.

[This team expects to, or already has, put in a large number of plants. Due to magazine space constraints, the editor has chosen to list only some whose names are unfamiliar to her.

From the Mediterranean Basin are *Acanthus spinosissimus*, *Anchusa azurea*, *Artemisia arborescens*, *Artemisia camphorata*, *Calamintha grandiflora*, *Cistus salviifolius* 'Victor Reiter', *Convulvus cneorum*, *Geranium macrorrhizum*, *Glaucium flavum*, *Mentha requienii*, *Phlomis frutcosa*, *Salvia officinalis* 'Berggarten', *Santolina neapolitana*, and *Trachelium caeruleum*.

From Central Chile is *Armeria maritima*.

From Southern and Southwest Australia are *Anigozanthos* 'Bob and Blanche's Wedding', *Eucalyptus erythronema*, *Eucalyptus forrestiana*, *Eucalyptus spathulata*, *Grevillea thelemanniana*, and *Isotoma fluviatilis*.

From the South African Cape region are *Chasmanthe aethiopica* and *Leucodendron* 'Cloud Bank Jenny' and 'Safari Sunset'.]□



Now is the Time . . .

A CULTURAL CALENDAR OF CARE FROM OUR
AFFILIATES, UC COOPERATIVE EXTENSION,
AND CALIFORNIA GARDEN STAFF

AFRICAN VIOLETS

Helen La Gamma

NOW IS THE TIME

TO PREVENT extreme differences between night and day temperatures.

TO KEEP the plants well groomed and repot those that have outgrown their pots. A good rule—the pot should be 1½ times the diameter of the leaf span.

TO CONTINUE to have good circulation of air around the plants.

TO PROVIDE adequate humidity; monitor the temperature carefully.

TO PLAN on using your plants with holiday decorations; plant in containers to match color scheme.

BEGONIAS

Margaret Lee

NOW IS THE TIME

TO CLEAN up all debris—remove dead leaves and spent blooms.

TO WATER as needed.

TO PUT a top dressing of your favorite mulch around plants to replace any soil or mulch washed away by fall rains.

TO GIVE a light feeding several times a month to help the plants withstand any adverse conditions a little better.

TO SPRAY for mildew control.

TO ALLOW tuberous begonias to die back on their own; put aside and let rest, but sprinkle occasionally.

TO BE VIGILANT for insects; spray for mealybugs and other pests.

BONSAI

by San Diego Bonsai Club

NOW IS THE TIME

TO REDUCE watering, deciduous trees require just

enough to keep them from drying out.

TO MOVE plants into shade if a hot spell occurs. Avoid a second growth period during this time—it will weaken the trees.

TO REFRAIN from fertilizing or transplanting at this time.

TO KEEP deciduous trees protected from sudden changes of temperature.

TO REMOVE any old leaves, fruit, or seeds from deciduous trees.

TO PRUNE black pines by cutting the candles about half length.

TO GRAFT conifers in December.

BROMELIADS

Mary Siemers

NOW IS THE TIME

TO STOP fertilizing during fall and winter months, except those that are kept in a greenhouse.

TO REDUCE the frequency of watering when weather turns cooler.

TO PROTECT your plants from hail damage during the rainy season by providing overhead protection such as shadecloth that will allow plenty of light.

TO PROTECT plants from freezing temperatures by covering with sheets or newspaper.

TO KEEP plants clean by cutting spent blooms and dead leaves with scissors.

TO SPACE plants apart to allow air circulation. This helps to prevent scale.

CACTI & SUCCULENTS

Joseph A. Betzler

NOW IS THE TIME

TO WATCH your plants. Most cacti and succulents have a dormancy period. Depending on the weather, many winter growers may start early growing.

TO FERTILIZE the plants that are actively growing.

TO WATER only in the morning on a day that is going to be warm. By doing this, no standing water will be on plants in the evening.

TO PROTECT tender plants from excessive cold and winter rains. Repair cracks and leaks in shelters before the rains arrive.

TO KEEP ants under control; they transport aphids and mealybugs.

TO REMEMBER that when plants become too cold during the cold evenings the growth of fungi and bacteria can be fostered.

TO START looking for winter growing succulents to add as an extra dimension to your collection.

TO CLEAN up your plants' growing area.

CAMELLIAS

E. C. (Gene) Snooks

NOW IS THE TIME

TO FEED with a 2-10-10 fertilizer to promote larger and better blooms.

TO CONTINUE disbudding.

TO PICK up all old blooms to prevent petal blight.

TO SELECT new plants while in bloom.

TO TREAT some blooms with gibberellic acid for larger and earlier blooms.

TO MAINTAIN a regular spray program as needed. Watch for mites and looper worms.

TO KEEP a regular watering schedule, never let a plant dry out—maintain an even, moist condition.

TO MAINTAIN humidity—on any dry, hot days mist in later afternoon to keep from burning leaves.

DAHLIAS

Abe Janzen

NOW IS THE TIME

TO WITHHOLD water and fertilizer to let the plants go dormant.

TO ALLOW plants to dry—when brown about 12 inches from ground, cut off the stalk.

TO LEAVE tubers in the ground to harden off if there is good drainage. Otherwise lift roots before the heavy rains.

TO WASH clumps after digging, let dry a few hours before storing. If dividing tubers, treat cut area with soil sulfur, store in vermiculite, sand, or other medium. Store out of the weather. Be sure tubers are tagged before storing.

EPIPHYLLUMS

San Diego Epiphyllum Society

NOW IS THE TIME

TO WITHHOLD fertilizer, especially one with nitrogen. Allow the plants to become semi-dormant.

TO WATER sparingly, but do not allow plants to dry out completely.

TO PROTECT plants from exposure to the elements. Frost, hail, and strong winds can cause irreversible damage. Overexposure to harsh winter sunlight can be as detrimental as hot summer sun.

TO TIE or stake long branches so they will not break when winds and rain arrive.

TO CHECK for snails and slugs; a few granules of Sluggeta at the base of the plant are often effective and leave little to no residue.

TO MAINTAIN good grooming and prune out nonproductive branches to conserve plant energy.

FERNS

by San Diego Fern Society

NOW IS THE TIME

TO CHECK containers to ensure planting mix has

not completely broken down; add more mix to containers that need it.

TO BE ALERT for insects. Slugs and snails are very active.

TO WATER if it does not rain. Check plants not reached by rain.

TO APPLY a weak fertilizer solution once more before the December rest period.

TO PLANT spores and keep in a warm area.

TO CLEAN out weeds, oxalis, and debris from pots.

TO PROTECT plants at night in frost areas. Cover with newspaper or old sheets or place in garage.

FRUIT TREES AND VINES

Vincent Lazaneo, Hort. Advisor, UC Coop Extension

NOW IS THE TIME

TO PRUNE deciduous trees and vines after their foliage has dropped. Wait until early spring to prune evergreens.

TO SPRAY dormant deciduous trees and vines with horticultural oil to kill scale, insects, spider mites, and other overwintering pests.

TO SPRAY peach and nectarine trees with a fungicide such as lime sulfur (calcium polysulfide) to control leaf curl.

TO ORDER bare-root trees and vines to plant in December or January.

TO PROVIDE frost protection for young citrus and other subtropical fruit trees.

FUCHSIAS

William Selby

NOW IS THE TIME

TO ALLOW plants to rest; reduce or stop fertilizing.

TO DO heavy pruning in mild areas or in a greenhouse. Can make cuttings if a good tip available.

TO CLEAN up. Remove all dead leaves, blossoms, and debris from pots and baskets and around plants in the ground.

TO WATCH for insects, molds and fungi in warmer areas.

TO MULCH plants left outside in areas where there is danger of frost; move baskets under cover for protection.

GERANIUMS (Pelargoniums)

Carol Roller

NOW IS THE TIME

TO WATER thoroughly when plants become somewhat dry. Watering will not need to be done as often as in the warmer seasons. Allow the excess water to drain away. Keep the foliage as dry as possible.

TO CONTINUE feeding as needed. Do not allow plants to show prolonged signs of nutritional deficiencies. Use a balanced fertilizer that can be dissolved in water.

TO CONTINUE a pest control and disease prevention program, using all products according to the manufacturer's direction.

TO PRUNE any plants which have not been cut back. At least one green leaf should remain on every stem of regals, scented, and similar types. Lanky plants which were pruned in the fall can be cut again to produce compact plants.

TO MAKE cuttings from the prunings. Shelter cuttings from extreme weather. They will root faster in a warm location.

TO PINCH the rest of the plants which were pruned in the fall.

TO GIVE plants temporary shelter if the temperature approaches freezing.

TO ROTATE plants on a regular basis in order to keep well shaped.

GREEN THUMB

by Editorial Staff

NOW IS THE TIME

TO FEED bird of paradise. Cut out dead growth from clumps to improve appearance.

TO PLANT bulbs for spring blooms—daffodils, narcissus, ranunculus, anemones, scillas, callas, tulips, and hyacinths.

TO PRUNE and shape holly and pyracantha when cutting berries for holiday decorations.

TO APPLY dormant spray in December to control pests and disease next year; to use snail and slug bait regularly.

TO ENRICH your soil, prepare now for bare-root planting in late December and January.

HERBS

by Terry Tucker Hinkley

NOW IS THE TIME

TO CONTINUE pinching herbs back, harvesting the cuttings for winter use and gifts.

TO DRY herbs in bunches upside down or on a screen in a warm dry location.

TO START making potpourri from your dried and store-bought herbs, as well as sachets, bouquets garnis, fines herbs, and other herbal holiday gifts from the garden.

TO WATER again in the late afternoon as necessary during hot dry spells.

TO BEGIN preparing winter indoor herbs by potting up cuttings in kitchen window sized containers,

keeping soil damp and humidifying during hot weather.

IRIS

San Diego/Imperial Counties Iris Society

NOW IS THE TIME

TO CLEAN beds of dead leaves and weeds; aphids winter-over in debris-filled areas.

TO SPRAY for aphids or give a light feeding of a systemic to control all sucking plant pests.

TO MAKE a final planting of bearded types, spurias, Louisianas, and Siberians.

TO PLANT bulbous type iris—Dutch, English, and Spanish for spring bloom.

TO MOVE and replant Pacific Coast natives in late December when the little white roots are showing. Water well until they are established.

NATIVE PLANTS

Jeanine De Hart

NOW IS THE TIME

TO SUPPLEMENT the rains with plenty of deep watering. This is the time of the year that the roots are growing vigorously.

TO MAKE root cuttings of Matilija poppy. A piece of yellowish-orange root about 4" long and as thick as a pencil works best.

TO CONTINUE to take advantage of cool spells and rains to get the rest of the natives that you have purchased into the ground.

TO MAKE sure you're not planting the natives too close together, keeping in mind the ultimate growth.

TO NOTE the poor draining areas of your yard and avoid planting the most sensitive plants there such as, yellow bush-poppy (*Dendromecon rigida*), flannel-bush (*Fremontodendron sp.*), manzanita (*Arctostaphylos sp.*), California lilac (*Ceanothus sp.*), or woolly blue-curls (*Trichostema lanatum*).

ORCHIDS

Charles Fouquette

NOW IS THE TIME

TO FEED a dilute solution of 30-10-10 fertilizer to intergeneric *Oncidium* hybrids, *Brassidium*, *Miltonia* if they are planted in bark. If they are grown in any other medium, feed a solution of 18-18-18. (The numbers reflect a guideline, not hard and fast numbers.)

TO FEED *Cymbidium* a 30-20-20 fertilizer. Stake new spikes—do not rotate plants. Protect buds and flowers from hail, rain, or sun damage.

TO REPOT *Cattleya* if new growth is outside of the pot and the plant is in active growth. (Otherwise, wait until spring.) Feed an 18-18-18 fertilizer, or similar, during the winter and only every third watering.

TO CLEAN up old leaves, flowers, and other "trash" in

growing areas. Remove shade cloth to give as much light as possible to the common growing areas. Clean the swamp cooler; drain the water out of the bottom; protect the motor by wrapping it with a plastic trash bag after you have oiled it and checked the belts and cords.

TO CLEAN humidity spray nozzles. Remove nozzles from feed line, loosen the brass parts and take apart. Soak these parts in a glass container with a solution of ten parts water to one part swimming pool acid (e.g., phosphoric, muriatic), using protective gloves and goggles. Or use pure vinegar, which works well but is slower. Through the glass container you will see when the parts are clean; rinse them with clear water and reinstall, after flushing the feed lines.

TO CHECK the heater fittings, pilot light, flues, and vents. Check that the temperature sensors and activators are set at their HI-LO settings. You must have a fresh inlet somewhere in the hothouse, for AIR. You need clean air for combustion in the heating chamber and to replace the air burned in combustion going up the flue to the outside of the hothouse. If you don't provide a clean air intake, you will have poor and unclean combustion and ethylene gas in the hothouse killing flowers.

TO LET deciduous *Dendrobium* go dormant. Stop feeding when leaves start to drop. Water just enough to maintain root moisture. (Start to fertilize and water normally next spring when buds have swollen and are starting to develop and plant is starting active growth.)

TO HAVE *Phalaenopsis* be well on their way in the flower initiation mode at this time. Increase light to about 1500 foot-candles by any means—shade cloth removal, etc. Try to duplicate the weather in the areas where phals are native (at this time of year the temperatures drop and it is very clear, cloudless, and relatively dry). You lowered the night temperature through October to 52-55 degrees while fertilizing with dilute solutions of 30-20-20 every other watering. In November, maintain the high light and increase the night temperature to 62-65 degrees (your target minimum temperature). The first week, water with clear water to flush all salts that may remain. The next three weeks, water with a solution of epsom salts, mixed 4 lbs. in 5 gals. water, applied through a Hozon proportioner. This gives the plants the magnesium sulfate they need for colorful flowers. The first week of December, flush again with clear water. The next three weeks, use a high phosphorus fertilizer to help flower production and plant turgidity. By January, you should be back to average care and fertilization. Try to maintain the high light until the temperatures get warmer, then drop the light to 1000± foot-candles until next year. Maintain air movement at all times.

ROSES

Marianne Truby

NOW IS THE TIME

TO ASSESS your garden and prepare for planting newly arrived bare roots when they become available at your local nursery.

TO DISCONTINUE deadheading, allow hips (seed

pods) to form, to encourage your rose to slow down flower production and become dormant.

TO REDUCE amount of water but do not allow bushes to become too dry if fall rains do not occur.

TO REMOVE bushes no longer producing and prepare new planting hole by adding amendments and superphosphate to existing soil to give bare roots a good growing medium.

TO PRUNE floribundas in late December.

TO CLEAN up entire rose bed and dormant spray once before pruning and again after pruning before buds leaf out.

TO PREPARE for pruning by checking your equipment. Proper equipment, clean and sharp will make the job easier. Don't forget the gloves and knee pads.

VEGETABLES

Vincent Lazaneo, Hort. Advisor, UC Coop Extension

NOW IS THE TIME

TO REMOVE and compost warm-season vegetables to prevent pests and diseases from overwintering on them.

TO CONTINUE planting cool-season vegetables which will not be subject to frost injury.

TO PLANT seeds of short-day onions, such as 'Grano', 'Granex', or 'Crystal Wax', and garlic cloves in November for bulbs next summer.

TO PLANT dormant crowns of artichoke, asparagus, and rhubarb. To avoid crown rot of rhubarb, plant crowns in containers filled with porous potting soil and transplant into garden where drainage is good after several leaves have developed.

VEGETABLES, ANNUALS

from UC Cooperative Extension Publications

NOW IS ONE OF THE BETTER TIMES IN FROST-FREE AREAS

TO PUT IN TRANSPLANTS OF: broccoli, cabbage, and cauliflower — California natives, cineraria, columbine, fairy primrose (*Primula malacoides*), garden stock (*Matthiola incana*), hollyhock, Iceland poppy, ornamental kale, pansy, pink sand verbena, pot marigold (*Calendula*), snapdragon, and viola.

TO PUT IN SEEDS OF: beets, carrots, chard, kale, kohlrabi, lettuce, onion (green and dry), parsnips, spinach, and turnips — baby blue eyes, California natives, candytuft, Chinese forget-me-not (*Cynoglossum amabile*), forget-me-not (*Myosotis sylvatica*), lupine, sweet alyssum (*Lobularia maritima*), spring flowering sweet pea, and Virginia stock (*Malcolmia maritima*).

COMMUNICATIONS . . .

WE WELCOME LETTERS PERTAINING TO GARDENS!

We request comments from readers who feel that we have provided incorrect information. The goal is to give readers the best gardening knowledge available.



Daylily tetraploid hybrid,
showing anther and filament arrangement
Photo by Betty Newton

ERRATA

September 12, 1997

Dear California Garden Editor:

I know you and your staff discovered the problem with the beautiful but misidentified photograph on the back of your last issue [Sept-Oct 1997] shortly after it was published. Don't be too embarrassed; lots of people confuse *Hemerocallis* (daylilies) with *Lilium* (lilies).

However, seeing each grow, we quickly note a difference in the plants. A daylily blooms on arching stems above a grassy clump of foliage, from a clump of slender basal leaves to one inch wide. Lilies, in contrast, bloom at the top of three-inch leaf-covered stems and in addition have those prominent, pollen-laden anthers, often dark and more or less at right angles to the pistil and other sexual parts.

The easiest way to start seeing the difference between daylilies and lilies (*Lilium*) is to notice that daylilies are never sold in grocery stores and lilies frequently are. Inland, partial shade is appropriate for their culture. 'Stargazer', 'Enchantment', etc. are lilies.

Betty Newton

CALIFORNIA GARDEN has received a letter from Dawn E. Nielsen, Deputy Agricultural Commissioner/Sealer of Weights and Measures, County of San Diego, saying that an article in July/August issue, "Garden Tips That Work," had an item of incorrect information. We said that strychnine alkaloid gopher bait is available for sale from S. D. County Agriculture Department. Ms. Nielsen said that they have not sold strychnine treated bait since 1991; and that the only bait that the County currently sells is diphacin treated bait for ground squirrels, rats, mice and a few other pests for which this product is labeled.

Mort Brigadier, author of that article, says that strychnine alkaloid gopher bait is still available in stores, but that Ron Habgood (694-3540) San Diego County Pest Control has a caution for people using this bait. He says that it must be placed underground and not sprinkled in the open where children, cats, birds, dogs, and wildlife might be attracted to it.

September-October 1997 issue, page 140, "Wired! (Subtitled: Getting Off the Ground)," the following should have been the chart of suggested plants for hanging baskets:

Sun-Perennial

Hanging Rosemary
Convolvulus mauritanicus
Osteospermum
Portulaca
Thunbergia alata
Cascading Chrysanthemums
Gazania
Verbena hybrida
Geranium

Nepeta (Cat Mint)

Sun-Annual

Nemesia strumosa
Petunia
Ageratum
Lobelia
Nasturtium
Sweet alyssum

Shade-Perennial

Begonia
Impatiens
Primrose
Primula
Ajuga
Fern
Hedera
Jasminum
Chlorophytum (Spider Plant)
Tuberous begonia
Fuchsia

Shade-Annual

Mimulus
Cineraria
Coleus



Book Reviews

PRUNING, PLANTING & CARE: Johnson's Guide to Gardening Plants for the Arid West

Erick A. Johnson with Scott Millard

Tucson, Ironwood Press, 1997, 160 pages, 51 color photos, 140 illustrations, 8 1/4" x 11", softcover, \$16.95

Southern California gardeners rejoice! This is a how-to book written by a hands-on expert for our region about our plants. Erick Johnson has an impressive scientific and practical background. He gives detailed instructions on when and how to prune, to plant, to water, to fertilize, and how to control garden pests and diseases without chemicals. The descriptions and sketches of each plant include origin, size, sun and water requirements, temperature tolerance, blooming period, etc. The plants are listed by both common and scientific names in the index. The excellent illustrations take one step-by-step through a procedure.

Many gardeners think that plants should be trimmed during the dormant period—not so. Some should be trimmed after flowering. The master flowering and pruning charts in the center of the book should be really handy for a quick check on what should be done, when. One can learn a great deal from this book. It would make a wonderful gift.

Reviewed by Barbara S. Jones

WHERE ON EARTH: A Guide to Specialty Nurseries and Other Resources for California Gardeners

Barbara Stevens & Nancy Conner

Berkeley, Heyday Books, 1997, 389 pages, 13 maps, 8" x 4 1/4", softcover, \$12.95

This concise, informative, pocket size book should be part of every garden lover's travel information packet. It is divided into convenient geographic areas and lists horticultural attractions and nurseries, including colleges and universities and their plant interests, plus information on University of California Extension programs. Addresses and phone numbers are included. The main emphasis of the horticultural attractions is briefly described. Over three hundred nurseries are included and their primary plants emphasized, a brief history and description, other general information (such as times open, etc.), and instructions on how to find it are given for each nursery.

I found the book very informative and interesting and easy to read. There are places in my own-back-yard I did not know existed. It also would make a wonderful gift.

Reviewed by Barbara S. Jones

THE HARMONIOUS GARDEN

Catherine Ziegler

Portland, Timber Press, 1996, 292 pages, 151 color photos, 150 b&w illustrations, 7 1/4" x 10", hardcover, \$44.95

Here is a well-illustrated textbook by a teacher of garden design. Ms Ziegler's purpose is to assist gardeners desiring to be more effective in timing blooming periods and less wasteful of gardening space, time, and expenditure.

Part One, "The Visual Statement" has a modest color photo at the top of each page above a black and white diagram of that plot designating the plants in each space—plants that go well together in their demands for sun, shade, soil and fertilizer, and in their blooming seasons.

Part Two, "Plant Details and Association," provides additional information about the plants of Part One. There are two helpful Appendices of "Bloom" and "Foliar" options for temperate climates, followed by common name cross-references, bibliography, zone maps, and an index of common plant names.

The Harmonious Garden is pleasant to look at and informative (You can't have too many plant reference books.) However, since most of the photos were taken in and around New York City, plus several in England, all the information may not be applicable for the common garden variety California landscaper.

Reviewed by Jane Field Alexander

NATURALLY HEALING HERBS

Cary Wall

New York, Sterling Publishing, 1996, 144 pages, 32 color photos, 53 line drawings, 6" x 9", softcover, \$12.95

Naturally Healing Herbs is, quite simply, about tonics. They acquired a bad name at the beginning of the twentieth century because of the itinerant snake oil salesmen, who peddled nonsense along with their alcoholic, sometimes cocaine-laced "medicinal" tonics throughout the countryside.

This book, however, takes a second look at an intriguing topic. Tonics are medicinal preparations from herbs, to restore tone and vigor to the bodies of people suffering from a deficiency, according to author Cary Wall. These tonics are "formulated to relieve certain symptoms like malaise, lethargy, loss of appetite and stress symptoms such as headaches, insomnia, stomach disorders and nervousness." With some exceptions noted by the author (and of course the admonition to seek medical care for true medical problems) tonics can be safe and effective for simple complaints.

The book continues with the history of tonics, from monastery physic gardens, through the Shakers, to the downfall of tonics at the hands of the snake oil salesmen. Herbs mentioned as successful include horehound, lovage, mint, garlic, chicory, parsley, and rose. Hops, pepper, echinacea, goldenseal, dandelion, nettle, ginseng, valerian, and licorice are also noted.

Two ways of incorporating tonics are outlined: the Weekend Renewal Plan and the Wellness Tonic Program. Anecdotal success stories "prove" the benefits of these tonic programs.

Next, how to make tonics and tools of the trade are mentioned. Then comes the meat of the book, and the part I found most interesting: listings of traditional tonic herbs, from dried apple slice tea (apple pectin), through sweet woodruff, in the section on Blood Purifying Tonics. Then other appropriate

herbs are discussed under the titles of Strengthening, Energizing, Renewing and Regenerative Tonics.

Finally the recipe for the famous Four Thieves Vinegar, supposedly effective during the plague, and modern-day arthritis, migraine, and cold, sinus, and flu concoctions, plus directions for making your own tonics.

This book is for those who'd like to try old time herbal tonics of their own making. I recommend it highly to them.

Reviewed by Terry Tucker Hinkley

THE COMPLETE HERB GARDENER

Paul Seitz

New York, Sterling Publishing, 1996, 144 pages, 6¼" x 8¾", color throughout, softcover, \$14.95

The Complete Herb Gardener, originally published in Germany, features over seventy-five herbs, and beautiful color photos on every page. The book certainly lives up to its title, in the sense that it offers readers information on every aspect of the herbs it covers: planning, planting, design, and use, plant profiles with information on characteristics, cultivation, harvesting, cosmetic, medicinal uses and even the active substances in each herb. Companion plants for the herbs are suggested as well.

The photos are beautiful and helpful in identifying the herb being discussed — such plants as Roman vs. German chamomile, for instance, and verbena, which is the common name of more than one plant.

In summary, *The Complete Herb Gardener*, by Paul Seitz, does the job and is worthy of the bookshelf of any herb lover who doesn't already have such a book in his or her collection.

Reviewed by Terry Tucker Hinkley

GREENHOUSE GARDENING

Jonathan Edwards

N. Pomfret, Vt., Distributed by Trafalgar Square Press, 1996, 128 pages, color throughout, 7½" x 9¾", softcover, \$16.95

If there was ever a book to inspire me on gardening, this book by Jonathan Edwards, *Greenhouse Gardening* is it. This book will help you choose the right greenhouse and enjoy growing success for years to come. The size of the greenhouse is determined by finances and your available space.

The book starts out by choosing a greenhouse, like each of the ten chapters, it has a checklist as a review of the chapter. It is written in a way that you can plan your work in the greenhouse season by season, spring through winter. The book also covers what equipment is needed, propagation, and pests and diseases that you might encounter. I keep my book for quick reference for vegetables and fruits to grow.

Reviewed by John Rojas, Jr.

CUSHION PLANTS FOR THE ROCK GARDEN

Duncan Lowe

Portland, Timber Press, 1996, 160 pages, 76 color photos, 6½" x 9½", Hardcover, \$29.95

The author Duncan Lowe explains how cushion plants, or buns as they are affectionately called, play an essential part in every well-planned rock garden, and how they offer beauty and a diversity of size, leaf, and flower. He details successful cultivation in pots, troughs, plunge-beds, and other appropriate

sites. Information on pests and diseases is also included. Eighty-seven plants are fully described so the gardener will know which to try first. There are color photos that show all the details in these miniature plants and line drawings to illustrate useful planting techniques.

Reviewed by John Rojas, Jr.

WATER GARDENING, WATER LILIES AND LOTUSES

Perry D. Slocum and Peter Robinson

Portland, Timber Press, 1996, 434 pages, 445 color photos, 79 b&w illustrations, 8½" x 11", hardcover, \$59.95

This is a beautiful book and at first glance you might think it is one of those coffee-table-type books. But you would be very wrong. It is the most complete book on water gardens that I have ever read, covering every aspect of water gardening in an informative and easy manner.

The author, Peter Robinson, starts Part One with the history of water gardens from ancient through modern times. Chapters on design, construction, and planting of water gardens follow with diagrams and explanations detailing the good and bad of each. Plants of all kinds that belong in and around a water garden are listed and described in chapters on floating plants, submerged plants, marginal and bog plants, and moisture-loving plants. Looking after the water garden is a covered extensively from propagating plants to cleaning the pool.

Part Two is a unique encyclopedia of water lilies and lotuses by the well known American specialist Perry Slocum. Over 275 of his photos show the beautiful colors and forms of these flowers. The forty-two lotus pictures are a sight to behold with unbelievable colors, sizes, and leaf variations. All the water lilies and lotuses are described in narrative form as were the floating, submerged, marginal, and moisture-loving plants for Part One.

I must caution that anyone who reads this book, or even just glances through it, will be bitten with the water garden bug. Just look at this marvelous book and you will be bedazzled and ready to plan your own water garden.

Reviewed by Kathy Walsh

GARDENER'S HANDBOOK OF PLANT NAMES

A. W. Smith

New York, Dover Publications, 1997, 432 pages, 5¾" x 8½", Softcover, \$9.95

100 FLOWERS AND HOW THEY GOT THEIR NAMES

Diana Wells

Chapel Hill, NC, Algonquin Books, 1997, 257 pages, 100 illustrations, 5¼" x 7¼", hardcover, \$16.95

The first book, a Dover reprint of a 1963 publication is a great reference for any serious gardener. It includes the origins, meanings and pronunciation of both genus and species names. Genus names are usually either descriptive or named for a person, while species may be descriptive, the honoraria, or geographic. An additional bonus is a cross index of twelve hundred common plant names with botanical ones.

100 Flowers and How They Got Their Names is limited to the one hundred but each of them is described in short, informative, and interesting essays. It's pleasant reading; not a true reference book but its horticultural history, plant lore, and stories of botanists will appeal to many.

Reviewed by R. Cox

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A VISIT TO DENVER BOTANIC GARDENS

by ROBERT HORWITZ

IN MID SUMMER my wife and I visited the Denver Botanic Gardens. It was two days after one of the most violent hailstorms Denver had ever undergone and the heart of the storm was right on top of the gardens. Surprisingly, there was very little damage except to some very tender shrubs. This sort of typifies the motif of the garden in that it tries to show a garden setting for all seasons of the year and does a very good job of it.

The garden features plants that represent the transition zone between the Rocky Mountains and the Great Plains. And because of the rocks of the mountains, it has a remarkable rock Alpine garden. They say that this garden was designed with soil types to handle 3500 species of plants.

Part of the garden is dedicated to the preservation of endangered plant species. Seeds from these plants are harvested and resown back in the wild. A tropical conservatory is under construction and probably will have plants from tropical regions, with many that grow with abandon here in San Diego.

Denver has its water problems just like we do. The garden takes this into account by having a xeriscape demonstration garden that shows alternate garden approaches in water-short conditions. In contrast to that is a water garden that has an excellent collection of water plants, which has received accolades from the Royal Horticultural Society of England.

For me, perhaps the crowning touch to the visit to these gardens was the Japanese Garden that was laid out in exquisite detail and authenticity. The placement of stones, pines, the teahouse, and the clear water is most serene and restful.

Robert Horwitz is a retired aerospace engineer who gardens in Point Loma.



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HOLIDAY TOUR

Thursday, December 4, 1997

On Thursday 4 December 1997, San Diego Floral Association is hosting a holiday tour that will include stops at a special nursery, lunch (on your own), and shopping in the Costa Mesa area. At the fabulous 5-Diamond Ritz Carlton Resort Hotel in Laguna Hills, we will have a full tea service (finger sandwiches, savories, and sweets, plus your selection of tea).

**SAN DIEGO FLORAL ASSOCIATION
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THURSDAY, DECEMBER 4, 1997

- ☐ \$53.00 Members (who pay dues to SDFA)
☐ \$56.00 Nonmembers, members of affiliates

Lunch NOT Included

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PICK-UPS

- ☐ Red Lobster Park/Ride, Grossmont Center, La Mesa 9:00AM
☐ Mission Valley on Camino del Este south of B/A 9:30AM

(Do not park between the Bank and the restaurant; park elsewhere in the shopping center and walk to the bus as the Farmer's Market is set up here every Thursday.)

- ☐ Hadley's at Palomar Airport Road, Carlsbad 10:00AM

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Casa del Prado, Room 104, Balboa Park
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Bring a lunch, coffee will be provided

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1998
February 17, 1998
April 21, 1998
June 16, 1998
October 20, 1998
5:45 p.m.
Casa del Prado, Room 101
Balboa Park, San Diego

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3rd Thu - 1:30 pm, Rancho Bernardo Library

BONITA VALLEY GARDEN CLUB

Pres: Norma Illingworth 479-3478

2nd Wed - 9:30 am, Rohr Park Manor,
Sweetwater Road

BRIDGE AND BAY GARDEN CLUB

Pres: Than Craddock 435-4236

4th Monday - 9:30 am, Winn Room,
Coronado Public Library

CARLSBAD GARDEN CLUB

Pres: Alice Miller 721-6884

1st Fri - 1:00 pm, Sep thru Jun

Heritage Hall, Magee Park

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Chairman: Marjorie E. Krieg 760-434-5232

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3rd Thu - 1:00 pm, Norman Park
Senior Center

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Pres: Mr. David E. Sigsworth 435-5028

CROWN GARDEN CLUB

Pres: Carvill Veech 435-8079

4th Thu - 9:30 am, Coronado Library

DOS VALLES GARDEN CLUB

Pres: Sarah Beers 749-2140

2nd Tue - 12:30 pm, Valley Center Com. Hall

ESCONDIDO GARDEN CLUB

Pres: Jerry Doughty 743-1879

3rd Fri - 1:00 pm, Escondido Joslyn Center

FALLBROOK GARDEN CLUB

Pres: Betty Henry 731-0706

FLEURS DE LEAGUE GARDEN CLUB

Chrm: Mrs. Richard A. Burt 299-6742

2nd Mon - 10:30 am, Home of Members

GROSSMONT GARDEN CLUB

Pres: Mrs. Sheila Hauserman 460-0387

2nd Mon - 9:30 am, 4975 Memorial Drive,
La Mesa

LA JOLLA GARDEN CLUB

Pres: Mrs. Don Atherly 551-8672

3rd Tue - 1:30 pm, L.J. Lutheran Church

LAKESIDE GARDEN CLUB

Pres: Mildred Digenan 443-1529

3rd Mon - 2:00 pm, Lakeside Historical
Church, 9906 Maine Avenue

LAS JARDINERAS

Pres: Alicia Elliott

3rd Mon - 10:30 am, Home of Members

MEN'S GARDEN CLUBS OF AMERICA, INC.

SAN DIEGO CHAPTER

Pres: Dan Wilson 760-727-0466

4th Sat - 11:00 am, Gardens of Members

MIRACOSTA HORTICULTURE CLUB

Pres: Renate Ritter 945-1287

3rd Sat - 1:00 pm, MiraCosta Community
College, Student Center Bldg (upstairs)

PACIFIC BEACH GARDEN CLUB

Pres: Mrs. Dale S. Munda 272-9727

2nd Mon - 1:00 pm, Recreation Center

POINT LOMA GARDEN CLUB

Pres: Virginia Lyon 223-3310

2nd Wed - 10:00 am, Westminster Presby
Church

POWAY VALLEY GARDEN CLUB

Pres: Colleen Michell 485-8170

RANCHO SANTA FE GARDEN CLUB

Pres: Bob Cleary 756-3226

2nd Tue - 7:30 pm, Garden Club

SAN CARLOS GARDEN CLUB

Pres: Phyllis Griffin 460-8398

4th Tue - 9:30 am, Home of Members

SAN DIEGUITO GARDEN CLUB

Pres: Clara Ziegler 943-8005

4th Wed - 9:30 am, Quail Bot. Gardens

SCRIPPS MESA GARDEN CLUB

Pres: Cindy Drake 271-8933

4th Mon - 6:00 pm, Scripps Ranch Library

THE VILLAGE GARDEN CLUB OF LA JOLLA

Pres: Betty Vale 459-0460

4th Thu - 10:00 am, Torrey Pines Christian
Church, LJ

THE VISTA GARDEN CLUB

Pres: Betty Larson 727-0731

1st Fri - 12:00 pm, Vista Senior Center

IKEBANA SCHOOLS

ICHIYO SCHOOL OF IKEBANA

SAN DIEGO CHAPTER

Pres: Hanuko Crawford 660-2046

IKEBANA INTERNATIONAL CHAPTER 119

Pres: Kaneko Bishop 583-8979

4th Wed - 10:00 am, Casa del Prado

IKENOBOKU CHAPTER OF SAN DIEGO

Pres: Mrs. Charles Oehler 278-5689

OHARA SCHOOL OF IKEBANA

LA JOLLA CHAPTER

Pres: Connie Davis 672-7850

2nd Tues - 10:00 am

All area codes are 619 unless otherwise noted.

CLUB AND PROFESSIONAL AFFILIATES (CONTINUED)

OHARA SCHOOL OF IKEBANA SAN DIEGO CHAPTER

Pres: Mrs. Walter Bourland 276-4667
SOGETSU SCHOOL OF IKEBANA
SAN DIEGO BRANCH
Director: Barbara E. Church 298-1535

PLANT SOCIETIES:

AFRICAN VIOLETS

HEARTLAND AFRICAN VIOLET SOCIETY

Pres: Claire Peck
3rd Tue - 7:00 pm, Wells Park Ctr, El Cajon
SAN DIEGO DAYTIME
AFRICAN VIOLET SOCIETY
2nd Mon - 1:00 pm, Christ United Methodist
Church, 33rd Street and Meade

BEGONIA

ALFRED D. ROBINSON BRANCH

AMERICAN BEGONIA SOCIETY
Pres: Doris Smith 222-1294
2nd Tue - 10:30 am, Home of Members

PALOMAR BRANCH

AMERICAN BEGONIA SOCIETY
Pres: Michael Ludwig 262-7535

SAN MIGUEL BRANCH

AMERICAN BEGONIA SOCIETY
Pres: Mrs. Eleanor Calkins 746-4743
Last Sat - 10:30 am, Home of Members

BONSAI

HON NON BO ASSOCIATION

Pres: Lit Phan
1st Sun every other month (begin Feb)
10:30 am, Casa del Prado
SAN DIEGO BONSAI CLUB, INC.
Pres: Lew Buller 576-0515

BROMELIAD

BROMELIAD STUDY GROUP OF

BALBOA PARK
Pres: Ken Campos
2nd Tue - 7:30 pm, Casa del Prado

SAN DIEGO BROMELIAD SOCIETY

Pres: John McDonald 538-3459
4th Wed - 7:00 pm, Casa del Prado
Nov & Dec ONLY, 3rd Wed

NORTH COUNTY BROMELIAD SOCIETY

Pres: Morlane O'Donnell 422-8168
4th Sun - 1:00 pm, Ecke Building
Quail Gardens

CACTUS & SUCCULENT

PALOMAR CACTUS AND SUCCULENT
SOCIETY
Pres: Paul Seward 486-0535
4th Sat - 12:45 pm, Joslyn Sr Ctr, Escondido

SAN DIEGO CACTUS AND

SUCCULENT SOCIETY
Pres: Tom Knapik 462-1805
2nd Sat - 1:00 pm, Casa del Prado

CAMELLIA

SAN DIEGO CAMELLIA SOCIETY

Pres: Jay Vermilya 449-0945
3rd Wed - 7:30 pm, Casa del Prado

DAHLIA

SAN DIEGO COUNTY DAHLIA SOCIETY

Pres: Ruth Kern 223-6000
4th Tue - 7:30 pm, Casa del Prado

EPHYPHYLLUM

SAN DIEGO EPHYPHYLLUM SOCIETY
Pres: Don Francis 273-5544
2nd Wed - 7:30 pm, Casa del Prado

FERN

SAN DIEGO FERN SOCIETY

Pres: Frank Darling 279-6899
3rd Thu - 7:30 pm, Casa del Prado

FRUIT

CALIFORNIA RARE FRUIT GROWERS

Pres: Cynthia Drake 271-8933
4th Thu - 7:00 pm, Casa del Prado
Nov & Dec ONLY, 3rd Thu

FUCHSIA & SHADE PLANTS

SAN DIEGO FUCHSIA AND

SHADE PLANT SOCIETY

Pres: Richard Hubbell 443-3706
2nd Mon - 7:30 pm, Casa del Prado

GERANIUM

SAN DIEGO GERANIUM SOCIETY

Pres: Gerald Stewart 760-726-9269
2nd Tue - 7:30 pm, Casa del Prado

HEMEROCALLIS

SOUTHWEST HEMEROCALLIS SOCIETY

Sec: Kathy Payne 760-789-5790
1st Sat - 10:00 am, Sep thru May
Quail Gardens

HERB

THE HERB CLUB

Pres: Judy Dunning 669-0222
1st Thu - 7:00 pm, Call for location

HOYA

SAN DIEGO HOYA GROUP

c/o: Harriette Schapiro 273-4267
North County 758-4290

IRIS

SAN DIEGO/IMPERIAL COUNTIES

IRIS SOCIETY
Pres: George Bange 571-1154
2nd Sun - 1:00 pm - Jan/Mar/May

Jun/Aug/Nov - Joslyn Sr Ctr, Rancho Bernardo

NATIVE PLANTS

CALIFORNIA NATIVE PLANT SOCIETY

SAN DIEGO CHAPTER
Pres: Cindy Burrascono 685-7321
3rd Tue - 7:30 pm, Casa del Prado

LAKE HODGES NATIVE PLANT CLUB

Pres: Dorothy Frisbie 741-0829
4th Mon - 2:00 pm - Rancho Bernardo

Library (new), 2nd floor

ORCHID

CYMBIDIUM SOCIETY OF AMERICA, INC.

SAN DIEGO COUNTY
Pres: Ardell Marlin 753-6952
3rd Wed - 7:00 pm, Carlsbad Woman's Club

SAN DIEGO COUNTY ORCHID SOCIETY

Pres: Fred Weber 982-9128
1st Tue - 7:30 pm, Casa del Prado

ORGANIC

BONITA ORGANIC GARDEN CLUB

Pres: Norma DeMart 466-9398
3rd Tue - 7:00 pm, Bonita Valley Baptist Church

PALM

THE INTERNATIONAL PALM SOCIETY

SOUTHERN CALIFORNIA CHAPTER
Pres: Phil Bergman 291-4605
Please call for Meeting dates

ROSE

EAST COUNTY ROSE SOCIETY

Pres: Coe Applegate 670-0644
1st Sun - 2:00 pm, Gardens of Members

SAN DIEGO ROSE SOCIETY

Pres: Phil Ash 235-0004
3rd Mon - 7:30 pm, Casa del Prado

TREES

PEOPLE FOR TREES

Pres: Lily Hursh 234-TREE
FAX 687-0151

WATER GARDEN

SOUTHERN CALIFORNIA WATER GARDEN

SOCIETY
Contact: Walter Pagels 582-5408

AFFILIATES:

Send changes to: Lynn Beyerle, Affiliates
Editor, *California Garden*, 2125 Park
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